CLAIMS

1. An ultrasonic percutaneous penetration device, which, upon allowing a medicine containing an active ingredient to penetrate an organism from a skin surface, allows vibration of ultrasonic waves to penetrate the organism from the skin surface, comprising:

an irradiation unit that applies ultrasonic waves having a frequency of not less than 0.5 MHz from skin or a surface capable of contacting the medicine; and

a control unit that controls irradiation conditions of the irradiation unit.

2. The ultrasonic percutaneous penetration device according to claim 1, wherein the control unit controls at least one of factors including the frequency, irradiation power, period between on and off of power and irradiation time, which are irradiation conditions of ultrasonic waves.

3. The ultrasonic percutaneous penetration device according to claim 1, further comprising: a detection unit that detects the depth of a portion for penetration of the medicine,

wherein the control unit controls the irradiation conditions so as to allow the medicine to penetrate to the depth detected by the detection unit.

4. The ultrasonic percutaneous penetration device according to claim 1, wherein the irradiation unit applies not less than two ultrasonic waves having different frequencies.

5. The ultrasonic percutaneous penetration device according to claim 4, wherein the irradiation unit applies an ultrasonic wave having a frequency of virtually 1 MHz and an ultrasonic wave having a frequency of not less than 2 MHz.

6. The ultrasonic percutaneous penetration device according to claim 1, further comprising: at least one tool selected from the group consisting of a thermal tool for warming a portion to be subjected to penetration of the medicine, a massaging tool for repeatedly pressing and releasing the portion to be subjected to penetration of the medicine, an electrostimulator that applies electrical stimulation to the portion to be subjected to penetration of the medicine and a photostimulator that applies photic stimulation to the portion to be subjected to penetration of the medicine.

7. An ultrasonic percutaneous penetration kit, which, upon allowing a medicine containing an active ingredient to penetrate an organism from a skin surface, allows vibration of ultrasonic waves to penetrate the organism from the skin surface, comprising:

a medicine containing an active ingredient;

an irradiation unit that applies ultrasonic waves having a frequency of not less than 0.5 MHz from a surface capable of contacting the medicine; and

a control unit that controls irradiation conditions of the irradiation unit.

8. The ultrasonic percutaneous penetration kit according to claim 7, wherein the control unit controls the frequency of the ultrasonic waves to a frequency within a range from 3 to 7 MHz.

9. The ultrasonic percutaneous penetration kit according to claim 8, wherein the active ingredient is at least one active ingredient selected from the group consisting of vitamin C, vitamin C derivatives, kojic acid, glucoside, glutathione, kiwifruit extract, rose fruit extract, arbutin and acerola extract.

10. The ultrasonic percutaneous penetration kit according to claim 7, wherein the active ingredient is at least one active ingredient selected from the group

consisting of vitamin A, vitamin A acid derivatives, retinol, glutathione, α-hydroxy acid and a cell activation agent.

11. The ultrasonic percutaneous penetration kit according to claim 7, wherein: the active ingredient is at least one active ingredient selected from the group consisting of vitamin B group, capsaicin and caffeine, and the frequency of ultrasonic wave is controlled to not less than 0.7 MHz by the control unit.

12. The ultrasonic percutaneous penetration kit according to claim 7, wherein the active ingredient is at least one active ingredient selected from the group consisting of a thiocarbamate-based agent, an imidazole-based agent, an allylamine-based agent, an amorolfine-based agent, an undecylenic acid and derivatives thereof, an antifungal agent and an antitrichophyton agent.

13. The ultrasonic percutaneous penetration kit according to claim 7, wherein the medicine is impregnated into a base material.

14. An ultrasonic percutaneous penetration method comprising the step of: simultaneously as a medicine containing an active ingredient is made in contact with the skin, applying ultrasonic waves having a frequency of not less than 0.5 MHz to a skin surface through the medicine.

15. An ultrasonic percutaneous penetration method comprising the step of: after a medicine containing an active ingredient has been made in contact with the skin, applying ultrasonic waves having a frequency of not less than 0.5 MHz to a skin surface through a medium that transmits ultrasonic waves.

16. An ultrasonic percutaneous penetration method comprising the step of: after having applied ultrasonic waves having a frequency of not less than 0.5 MHz to a skin surface, a medicine containing an active ingredient is made in contact with the skin to which the ultrasonic waves have penetrated.

17. An ultrasonic percutaneous penetration method comprising the steps of:

selecting two or more processes from the following three processes: a process in which a medicine containing an active ingredient is made in contact with the skin; a process in which ultrasonic waves having a frequency of not less than 0.5 MHz are applied to the skin surface; and a process in which, simultaneously as the medicine containing an active ingredient is made in contact with the skin, ultrasonic waves having a frequency of not less than 0.5 MHz are applied to the skin surface through the medicine, and

carrying out the selected processes time-serially in succession.